

**REMARKS**

In accordance with the foregoing, claims have been neither cancelled nor amended. Claims 1, 4-6, 17, and 27-29 are pending and under consideration. Reconsideration is respectfully requested.

**REMARKS IN OFFICE ACTION**

As support for modifying Vancelette to disclose a displaying of "the channel number of the alternate programming for the view", the Office Action on page 7 sets forth additional remarks supporting a conclusion that a combination of Vancelette and Morrison would disclose all the claimed features of claim 1, for example.

Specifically, the Office Action on pages 2-3 sets forth that the distinct channels of Vancelette read on the claimed changing a current channel to a demanded major channel, citing col. 10, lines 21-35.

As noted in the corresponding Abstract, Vancelette is directed to providing a user different displayed videos based upon a distinct selected channel, e.g., permitting the user to switch from one camera angle shown in one displayed video to a different camera angle for alternate display, or display a different video for an alternate storyline from a currently displayed storyline.

Thus, the claimed major channel interpretation of Vancelette is that the primary channel, e.g., channel "10", is selectable, and the display of the minor channel interpretation of Vancelette is that one of an initial or alternate displays is chosen and displayed.

The Office Action further acknowledges that Vancelette does not disclose the display of the minor channel numbers of the alternate programming for viewing, on page 3 of the Office Action, and relies upon Morrison to disclose or suggest modifications of Vancelette, apparently with a conclusion that after such a combination of teaching of Vancelette and Morrison it would have been obvious to display the minor channel numbers on the digital television.

Morrison demonstrates a channel guide, where each time slot for selectable channels has either four SDTV listings of available SDTV programs or a single HDTV listing of an available HDTV program.

Thus, conversely to Vancelette demonstrating a need and desire to show different viewing angles or perspectives, or alternate story lines, for the same program, Morrison demonstrates an EPG method where separate and distinct programs can be selected.

Accordingly, first, it is again respectfully submitted that it would not have been obvious to modify Vancelette to display the separate and distinct channels in any combination with the different viewing angles or perspectives, or alternate story lines, for a single program.

At best, the combined teaching would only combine the two inventions such that for each selectable program of Morrison separate and alternate viewing angles, perspectives, or alternate storylines would also be available.

However, the Office Action appears to be proposing to take the teaching of different SDTV channels of Morrison and displaying them separately in a similar manner as Vancelette.

In particular, the Office Action on page 7 points to the illustrated program guide of Morrison, with the illustrated four SDTV listings of available programs and the illustrated single HDTV listing of available program. The Office Action states that the separate SDTV bandwidth channels 105A-D are "minor channels" and the single higher bandwidth HDTV channel 105 is the major channel, or that channels 105A-D are merely plural separate channels within a category of "channel 105".

Here, applicants respectfully submit that this disclosure of separate listings of SDTV channels in an EPG of Morrison would not teach or suggest to one skilled in the art to change the primary focus and invention of Vancelette to now display different programs, rather than the same program from different viewing angles, perspectives, or storylines.

Further, though some channels of Morrison are interpreted being minor channels and a major channel, that only means that the two references Vancelette and Morrison are interpreted as each disclosing separate and distinct minor/major channels, and the two are not combinable and would not together teach or disclose only one of the interpretations.

With regard to Morrison, however, at no time is there any suggestion that the listing of the channel numbers for 105A-D is received by the later shown channel 105, i.e., at no time are the minor channel numbers 105A-D received from an interpreted major channel 105.

Further, with Vancelette, there are no channel numbers to be received or displayed, and no displaying of any minor channel and the received channel numbers.

Still further, in Morrison, there is never need or desire for any demandable "major" channel that would have or desire to have any interpretable "minor" channels, or from which a minor channel program would be received or number of minor channels would be received based upon the demand of that "major" channel.

In Morrison, when any of the interpreted "minor" channels 105A-D are selected for display, there is no demanded "channel 105", i.e., no interpretable "major" channel 105 is demanded. Rather, only the interpreted minor channels 105A-D are demandable. In this case, as not "major" channel is demanded, the minor channel program and the numbers of minor channels cannot be received based on a demanded major channel. Likewise, if any selection of just channel 105 was available, e.g., when only one HDTV program is available, then there can

be no minor channels and no numbers of minor channels. Further, with such a demand of such a channel 105 with only the HDTV program, no minor program of the minor channel would be displayable and no numbers of minor channels would be available or receivable based upon that demand of channel 105.

Here, it is again noted that the rejected independent claims require the major channel to be "demanded" and changed from a current channel. Thus, when there are only demandable channels 105A-D, a "category" of channel 105 cannot represent the claimed major channel. In this case, channel 105 is never demandable. Equally, when there is only one demandable channel (either any of the channels 105A-D or only a single demandable channel 105), there are never any displayable minor channels that are received through the demanded major channel and never any displayable minor channel numbers. In this case, there would be no available minor channel numbers receivable from the demand of the major channel.

Accordingly, again, it is respectfully submitted that Vancelette and Morrison are separate and distinct systems with separate and distinct approaches to displaying program material. Vancelette displays the same program with different viewing angles, perspectives, and storylines, and Morrison permits a user to select from an EPG separate and distinct programs from separate SDTV channels whose combined bandwidth can be used at other times to display a single HDTV program.

Further, again, contrary to the Remarks on page 7 of the Office Action, even with the proposed interpretation of Morrison, the channels of 105A-D for SDTV programs cannot be considered minor channels differently from the same selectable channels 105A-D for HDTV programs, i.e., at any one time there is no disclosed or suggested major channel 105 from which the program of a minor channel is received or channel numbers 105A-D is received.

In the EPG time slot for 1:00, there are 4 separate selectable channels 105A-D for four respective programs, while in the time slot for 1:30 there is only one selectable program, again from the 4 separate selectable channels 105A-D, or potentially only a single selectable channel 105.

The program for the time slot for 1:00 for channel 105A, for example, is not received from any selection or changing of a channel to a major channel 105, and is further is not received from any selection or changing to any of the collective channels 105A-D in the 1:30 time slot.

Equally, the channel numbers are not received from any interpretable major channel, e.g., any demanded "channel 105".

Rather, in Morrison, no "channel 105" is ever demanded, and no programs for minor channels 105A-D are received based upon any interpretable demanded "major" channel and no channel numbers are received based upon any interpretable demanded "major" channel.

For example, see Morrison in col. 5, lines 26-39, reciting:

Microcomputer 110, as applied to the present invention, has several functions. First, the microcomputer 110 accesses the stored EPG data to determine whether the current program is on a digital channel. If it is not, the CPU 112 highlights the selection without alteration. If the program does, however, occupy a digital channel a further check is performed by CPU 112 to determine the precise number of channels associated with the program. If it is found that only one channel is required for the current program then the cell corresponding to that program is highlighted within the EPG display. If the program requires multiple channels then the program channel's corresponding cells are joined into a single larger cell by CPU 112 and shown as a single highlighted cell in the EPG display. The foregoing process is repeated each time the user switches to another program.

Thus, again, contrary to the Remarks on page 7 of the Office Action, at no time is any "major" channel demanded in Morrison, but rather the channels are either digital or not digital, and if digital they are shown as separate and distinct channels. Even if a program is a HDTV program, and requires additional bandwidth, the same separate and distinct channels 105A-D are still shown, but within the EPG the single program may be chosen.

For digital channels, in Morrison, there are no "major" channels that can be demanded for changing from a current channel, only separate and distinct digital channels. When a HTDV program is provided the system merely uses the entire bandwidth of the separate and distinct digital channels. Even if the HDTV program is available on only a single channel, e.g., a single demandable channel 105, no minor channel programs would be received or displayed and no numbers of minor channels would be received or displayed based upon that demand of the single channel 105.

Lastly, in Morrison, there is no need or desire to display the program of any of these separate and distinct channels and any of the corresponding channel numbers for these separate and distinct channels.

Accordingly, though the Office Action proposes that only parts of Morrison could be combined with Vancelette, presumably to use features of Vancelette that can be more easily interpreted to read on some of the claimed features, and use the different numbered channels of Morrison, it is respectfully submitted that the entire disclosure of both references must be considered.

Again, Vancelette sets forth a particular system that provides a user different viewing angles, perspectives, or storylines for single currently selected program, while Morrison sets forth a system for providing different programs through respective separately selected channels.

If the channel number aspect of Morrison is proposed to be combined into Vancelette, then the entire teaching and desired operability of Morrison must be considered, and equally, the entire teaching and desired operability regarding the described channel numbers of Morrison must be considered with the entire disclosure of Vancelette.

With this consideration, it is respectfully submitted that it would not have been obvious to combine the channel number aspect of Morrison with Vancelette. Further, even if combined, it is further respectfully submitted that any combination of the taught channel numbers aspect of Morrison with Vancelette still would not disclose or suggest all the claimed features of the independent claims.

Accordingly, contrary to the Remarks on page 7 of the Office Action, it is respectfully submitted that even though Morrison may disclose separate channels 105A-D, this disclosure of Morrison cannot be relied upon to teach or suggest to change any interpretation of any combination of Vancelette and Morrison to disclose or suggest all the claimed features of the independent claims.

### **REJECTIONS UNDER 35 U.S.C. § 103**

Claims 1, 17, and 27-29 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Vancelette (U.S. Patent No. 5,894,320) in view of Morrison (U.S. Patent No. 5,900,915). This rejection is further respectfully traversed.

Again, claim 1 recites “changing a current channel to a demanded major channel in response to a demand to change a major channel... displaying on the digital television minor channel numbers received through the demanded major channel.”

Vancelette, in col. 10, lines 21-35, discusses:

The microprocessor 540 will issue selection commands to the processing and decompression function 555 according to the code, signals from the user interface 535, and channel mapping and control data stored in memory 560. For instance, assume the viewer has not yet entered any commands to the user interface 535 other than selecting a primary channel to view. The microprocessor will then determine which audio and video packets in the received data stream correspond to the primary signals of the particular programming service provider (e.g., network X). Using the packet PIDs, the appropriate video and audio packets will be processed at function 555. Additionally, OSD data from the OSD processor 545 will be combined with the video signal at function 555 to form a composite video signal, which can allow, for instance, a split screen or overlay format with part of

the screen of the device 580 displaying the OSD graphics, and part of the screen displaying the video data.

As noted above, Vancelette is not related to how to display "minor channel numbers received through a demanded major channel." as recited in claim 1.

Claim 1 further recites "displaying on a television screen, as a viewing program, a program of a minor channel received through the demanded major channel."

In whole, col. 10, lines 10-56, of Vancelette discusses:

Thus, the display will instruct the viewer to press a particular key on a hand-held remote control infra-red transmitter, for instance, to receive particular audio and video signals on the display device 580. The display can inform the viewer of the default audio and video settings, or provide the viewer with instructions as to changing the default settings. The user interface 535 will receive the viewer's commands and provide them to the microprocessor 540 and memory 560. The memory may store information that identifies the particular viewer so that subsequent displays may be automatically customized. The microprocessor 540 will issue selection commands to the processing and decompression function 555 according to the code, signals from the user interface 535, and channel mapping and control data stored in memory 560. For instance, assume the viewer has not yet entered any commands to the user interface 535 other than selecting a primary channel to view. The microprocessor will then determine which audio and video packets in the received data stream correspond to the primary signals of the particular programming service provider (e.g., network X). Using the packet PIDs, the appropriate video and audio packets will be processed at function 555. Additionally, OSD data from the OSD processor 545 will be combined with the video signal at function 555 to form a composite video signal, which can allow, for instance, a split screen or overlay format with part of the screen of the device 580 displaying the OSD graphics, and part of the screen displaying the video data. The output from function 555 will be a baseband signal carrying digital audio, video and graphics data. The baseband signal will be converted to an analog signal at digital-to-analog (D/A) converter 550, then provided to a modulator 570. At the modulator 570, the analog signal is modulated at an RF carrier frequency which is set by the microprocessor 540, or at a default frequency (e.g., 60-66 MHz) which is compatible with the display device 580. In accordance with the present invention, the microprocessor 540 can change the pre-assigned channel mapping data of the audio and video packets corresponding to a particular programming service provider and channel designation.

As equally noted above, Vancelette fails to discuss "a minor channel" as recited in claim

1.

Thus, Vancelette fails to disclose "displaying on a television screen, as a viewing program, a program of a minor channel received through the demanded major channel."

The Office Action acknowledges that Vancelette does not discuss displaying the channel numbers of the alternative programming for the viewer, and appears to rely upon Morrison to disclose or suggest such features.

Further, in col. 3, lines 50-65, Morrison discusses

The present invention is best described with reference to the following example. Referring to FIG. 2 the viewer is currently watching "Seinfeld" on channel 105A. By pressing the appropriate key on a keypad entry system, such as a remote control, the EPG display is shown with "Seinfeld" highlighted. When the viewer presses the right arrow key or its equivalent the EPG display changes to that shown in FIG. 3 and "Terminator 2: Judgment Day" is now highlighted. Note that all four channels (105A, 105B, 105C, 105D) are highlighted because the movie is being broadcast on HDTV and using all of the available bandwidth reserved for channel 105. When the viewer next presses the down arrow key "Miami Vice" is highlighted in SDTV format as shown in FIG. 4. It should be appreciated that the viewer did not have to depress the down arrow key four times to get to "Miami Vice"

As noted above, Morrison fails to disclose displaying a major channel number "105" and merely discloses only four minor channel numbers.

Thus, Morrison is not related to "changing a current channel to a demanded major channel in response to a demand to change a major channel... displaying on the digital television minor channel numbers received through the demanded major channel."

Accordingly, it is respectfully submitted that the combination of Vancelette and Morrison does not teach or suggest the invention as recited in claim 1.

In addition, claims 17, 27-29 are patentable due at least to the same or similar reasons as claim 1, as well as for the additional recitations therein.

Claims 4-6 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Vancelette and Morrison, further in view of Ehteredge (U.S. Patent No. 6,172,674).

Ehteredge, in col. 13, lines 26-63, discusses:

In response to receiving the invoking signal from the user's invoking of the activation input item, the system displays pop-up symbols in step 552. FIG. 14 shows the screen of FIG. 4 with eight pop-up symbols 576, 578, 580, 582, 584, 586, 588 and 590. Each of the pop-up symbols correspond to both an input item on the input device and at least one selection item. For example, pop-up symbol 576 corresponds to the numbered one button on remote control 148 (input item) and to help button 228 (selection item). Pop-up symbol 578 corresponds to the numbered two button on remote control 148 and name button 230. Pop-up symbol 580 corresponds to the numbered three button on remote control 148 and go to button 232. Pop-up symbol 582 corresponds to the numbered four button on remote control 148 and slider 234. Pop-up symbol 584 corresponds to the numbered five button on remote control 148 and options button 236. Pop-up symbol 586 corresponds to the numbered six button on remote control 148 and

guides button 238. Pop-up symbol 588 corresponds to the numbered seven button on remote control 148 and to grid 224. Pop-up symbol 590 corresponds to the eight button on remote control 148 and to advertisement 222. In the example of FIG. 14, each of the pop-up symbols are numbers, wherein each number is the number for the corresponding button on remote control 148. Thus, it is possible to access the selection items of FIG. 14 with a remote that only includes a keypad with numbers 0 through 9. Providing client computer 100 with a remote only including a keypad would lower the manufacturing cost of the system. Note that the pop-up symbols may partially occlude a selection item; however, the selection item is not completely erased from the screen and the user will be able to see at least part of the selection item below or next to the pop-up symbol corresponding to the selection item. In one embodiment, the step of displaying pop-up symbols includes displaying help information for the pop-up symbols.

As noted above, pop-up symbols are related to numbers for button or remote control, but are not related to "minor channel numbers" as recited in claim 4.

Thus, it is respectfully submitted that the combination of Vancelette, Morrison, and Etheredge does not teach or suggest the invention as recited in claim 4.

In addition, claim 5-6 are patentable due at least to their depending from claim 1, as well as for the additional recitations therein.

#### **CONCLUSIONS:**


There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,  
STAAS & HALSEY LLP

Date: June 30, 2010

By:   
Sang Chul Kwon  
Registration No. 63,153

1201 New York Avenue, N.W., 7th Floor  
Washington, D.C. 20005  
Telephone: (202) 434-1500  
Facsimile: (202) 434-1501